

**United States Patent** [19]  
**Yamanaka et al.**

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[54] **DATA CONVERSION APPARATUS FOR DATA COMMUNICATION SYSTEM**

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[52] **U.S. Cl.** ..... 707/501

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707/513, 516, 530, 524

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[57] **ABSTRACT**

A data conversion apparatus is provided as a data transmitting apparatus in a data communication system which achieves pseudo interactive communications by using one-way communications between the data transmitting apparatus and a plurality of data receiving apparatuses. The data conversion apparatus converts documents stored inside into images to be displayed on the screen, such as a TV screen. In doing so, if the document includes character strings or image information as link destination information which specifies another document as a link destination, the data conversion apparatus adds a supplementary design into the image of the link destination information for the viewer to recognize such information.

**27 Claims, 36 Drawing Sheets**

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